

STATUS OF THE CLAIMS

1. (currently amended) A transgenic plant comprising a nucleic acid sequence encoding an orally active double stranded RNA targeting for genetic inhibition a ~~nematode~~ Heterodera glycines embryonic lethal phenotype gene, wherein nematodes ingesting said double stranded nematode RNA do not proliferate.

2. - 6. (cancelled)

7. (withdrawn) The transgenic plant of Claim 1, wherein said heterologous nucleic acid sequence is complementary to an RNA sequence selected from the group consisting of nematode Major sperm protein, RNA polymerase II, and Chitin synthase RNA sequences.

8. (withdrawn) The transgenic plant of Claim 7, wherein said heterologous nucleic acid sequences are at least 21 bases in length.

9. (previously amended) Seed from the transgenic plant of Claim 1, wherein said seed comprise said nucleic acid sequence.

10 – 13. Canceled

14. (withdrawn) The transgenic plant of Claim 1, wherein double stranded RNA is complementary to a nematode sterile phenotype gene.

15. (currently amended) A vector comprising a nucleic acid sequence encoding an orally active double stranded RNA sequence targeting for genetic inhibition a Heterodera glycines ~~nematode~~ embryonic lethal phenotype gene, wherein nematodes ingesting said double stranded nematode RNA do not proliferate.

16. (previously amended) The vector of Claim 15, wherein said nucleic acid sequence comprises a sense sequence linked to its complementary antisense sequence, said nucleic acid sequence being operably linked to a plant promoter.
17. (previously amended) The vector of Claim 15, wherein said nucleic acid sequence comprises a sense sequence and its complementary antisense sequence separated by a loop sequence.
18. (original) The vector of Claim 16, wherein said promoter is a tissue specific promoter.
19. (original) The vector of Claim 16, wherein said promoter is a constitutive promoter.
20. (previously amended) The vector of Claim 15, wherein said nucleic acid sequence comprises a sense sequence and its complementary antisense sequence each operably linked to separate promoters.
21. (withdrawn) The vector of Claim 15, wherein one of said heterologous nucleic acid sequences is complementary to an RNA sequence selected from the group consisting of nematode Major sperm protein, RNA polymerase II, and Chitin synthase RNA sequences.
22. (withdrawn) The vector of Claim 21, wherein said heterologous nucleic acid sequences are at least 21 bases in length.
23. (currently amended) A transgenic soybean plant comprising the nucleic acid sequence of Claim 15.
- 24-25. (canceled).
26. (currently amended) A method for controlling soybean cyst nematodes comprising:

providing a transgenic soybean plant comprising a nucleic acid sequence encoding an orally active double stranded RNA targeting for inhibition a ~~nematode~~ Heterodera glycines embryonic lethal phenotype gene, wherein the proliferation of nematodes feeding on said plant tissue is reduced as compared to nematodes feeding on non-transgenic plant tissue.

27. (original) The method of Claim 26, wherein said nematodes are plant parasitic nematodes.

28. (original) The method of Claim 26, wherein said nematodes are animal parasitic nematodes.

29. (original) The method of Claim 26, wherein said double stranded nematode RNA is orally active to prevent the proliferation of nematodes.

30. (original) The method of Claim 26, wherein said nematodes orally ingest said double stranded nematode RNA.

31. (previously amended) The method of Claim 26, wherein said nucleic acid sequence is located on a vector.

32. (previously amended) The method of Claim 31, wherein said nucleic acid sequence comprises a sense sequence and its complementary antisense sequence operably linked to a plant promoter.

33. (previously amended) The method of Claim 32, wherein said sense sequence and said antisense sequence are operably linked to the same promoter.

34. (previously amended) The method of Claim 32, wherein said promoter is a tissue specific promoter.

35. (previously amended) The method of Claim 32, wherein said promoter is a constitutive promoter.
36. (previously amended) The method of Claim 26, wherein said sense sequence and said antisense sequence are separated by a loop sequence.
37. (withdrawn) The method of Claim 26, wherein one of said heterologous nucleic acid sequences is complementary to an RNA sequence selected from the group consisting of nematode Major sperm protein, RNA polymerase II, and Chitin synthase RNA sequences.
38. (previously amended) The method of Claim 26, wherein said nucleic acid sequence is at least 21 bases in length.
39. (canceled).
40. (original) The method of Claim 26, wherein said nematodes feeding on said plant tissue are killed.
41. (withdrawn) The method of Claim 26, wherein double stranded nematode RNA is complementary to a sterile phenotype gene.
42. (currently amended) A transgenic plant comprising an orally active double stranded RNA causing decreased proliferation of soybean cyst nematodes ingesting said RNA as compared to soybean cyst nematodes feeding on non-transgenic plants, wherein one strand of said RNA sequence is complementary to a nematode embryonic lethal phenotype gene.
43. (canceled).